

COAST APD

## Department of Commer ce and Labor, COAST AND GEODETIC SURVEY,

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SCHOONER "MATCHLESS",

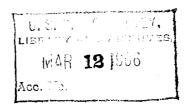
CRICKET HILL, VA., 3,7,1906.

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Mr. O. H. Tittmann,

Superintendent, C.& G. Survey,

Washington, D. C.



Sir:-

I have the honor to seport with reference to the hydrographic survey made in the vicihity of Ocracoke, N.C., in the fall of 1905, as follows:

- 2. The projection, on which the results of the survey are plotted, includes the bar, inlet and the several channels leading into Pamlico Sound.
- That to the westward of the island is of recent formation and slight depth. That to the eastward has a least depth of 11 3/4 feet over the bar which is one and one-half miles off shore—
  The black and white perpendicular striped nun buoy, which is intended to mark the crest of the bar, is located about 100 metres too far east. Otherwise, the channel is well marked and, after crossing the bar, is deep affording good anchorage north of Bird Island. The channel formany shown, leading northeast from the bar, no longer exists.
- 4. Several channels or slues lead from the Inlet into or through the bulkhead lying to the northward. Two of these channels are available for vessels of light draught. Teaches Hole Channel, leading nearly north, close to the west end of Ocracoke

Island, has a least depth of six feet. Wallace Channel, which was dredged to a depth of nine feet at its northwest end, is now available for vessels drawing only four to four and one-half ft.

5. Both of these channels are buoyed, and in addition there are three lighted beacons in Teaches Hale Channel which were satablished in April 1905:

Cockle Shoal Beacon marks the entrance to a nine foot anchorage abreast of the town of Ocracoke where the bottom is soft and vessels are sheltered by sand reefs. Swash Beacon and Swash Channel Beacon, the latter also known as Mine-foot Shoal Beacon, stand on either side of the south end of the Swash Channel leading from Teaches Hole Channel to Pamlico Sound. The outer end of the Swash Channel is marked by a black and white perpendicular striped can buoy one and one-half miles north west of these beacons.

- 6. Ocracoke Light House, on the east side of the entrance from the ocean and the sound, is a stone tower 75 feet high and painted white- The light is fixed white and is of the fourth order.
- 7. The light house at the southwest point of Royal Shoal, on the prolongation of the cut into Wallace Channel, is a screw pile structure 35 feet high showing a fixed white light of the fifth order. It is eight miles west by north from Ocracoke Light House and two and one-half miles south east from an unused light house which stands on the northwest point of Royal Shoal.
- 8. The Life Saving Stations and Church Spires at Ocracoke and Portsmouth are conspicuous objects, as is also the brick

chimney of the clam house at the entrance of Cockle Creek.

- shores are subject to constant changes due to atrong currents which are influenced largely by the direction and strength of the wind. The hurricane of 1899, besides destroying many houses and causing considerable loss of life, completely changed the shore line at the southwest end of Ocracoke Island and the northeast end of Portsmouth Island. The former extends three-fourths of a mile beyond the point shown by previous surveys and the latter has washed away to a similar extent. Portsmouth appears to have suffered more than Ocracoke and is now so isolated that vessels cannot land or anchor conveniently near. During heavy easterly storms the beaches are overflowed and both villages are completely surrounded by water.
- 10. Tides were observed at Ocracoke during daylight for two months and the mean range was found to be 1.07 feet. The range at the Inlet, from former observations, is 1.90 feet and in the Sound less than one foot. Currents sometimed attain a velocity approximating three miles an hour.
- ll. Ocracoke has a population of 750 and Portsmouth about one-third as many. Regular communication with Newberne and Washington, N.C., is maintained by several small schooners which make two or three trips each week from Ocracoke. Formerly a steamboat connected with the Norfolk and Southern Railread performed this service, but it was discontinued on account of frequent delays in crossing the Swash. It is proposed to resume running this boat during the coming summer.

Mails are received six times a week, unless delayed by storms, being brought from Beaufort, N. C., by motor boat.

- 12. Oysters have been planted quite extensively in the vicinity of Royal Shoal. Glams are abundant on the flats comprising the bulkhead. Fishing, tonging and dredging are the principal industries.
- 13. The area covered by this survey approximates 65 square miles and 711 miles of sounding lines were run.

Respectfully yours,

Assistant, C.& G. Survey,

Commanding.

## Department of Commerce and Tabor COAST AND GEODETIC SURVEY Washington

And sheet 2798 with tracing showing curves

after correction and revision, with recommendation

That The sheet be made to agree with tracing

Returned Kenewith are claudards, 10, 143,

145, 146, 1000 & 1001 for correction from revised

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with new work.

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## Department of Commerce and Labor

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(Ed. 11-22-1904-500,000) June 8. 1906

700mm